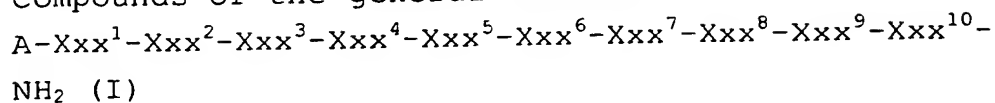


Patent Claims

1. Compounds of the general formula I



in which

A is an acetyl or a 3-(4-fluorophenyl)propionyl group,

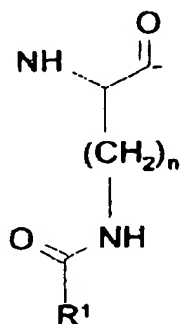
$X_{xx}^1$  is D-Nal(1) or D-Nal(2),

$X_{xx}^2$ - $X_{xx}^3$  is D-Cpa-D-Pal(3) or a single bond,

$X_{xx}^4$  is Ser,

$X_{xx}^5$  is N-Me-Tyr,

$X_{xx}^6$  is D-Cit, D-Hci or a D-amino acid group of the general formula (II)

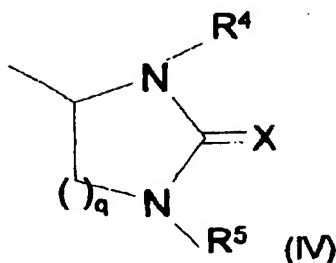


(II)

in which n is the number 3 or 4, where R<sup>1</sup> is a group having the general formula III



where p is an integer from 1 to 4, R<sup>2</sup> is hydrogen or an alkyl group and R<sup>3</sup> is an unsubstituted or substituted aryl group or heteroaryl group, or R<sup>1</sup> is a 3-amino-1,2,4-triazole-5-carbonyl group or R<sup>1</sup> is a ring of the general formula (IV)



in which q is the number 1 or 2, R<sup>4</sup> is a hydrogen atom or an alkyl group, R<sup>5</sup> is a hydrogen atom or an alkyl group and X is an oxygen or sulphur atom,  
 5 Xxx<sup>7</sup> is Leu or Nle,  
 Xxx<sup>8</sup> is Arg or Lys(iPr),  
 Xxx<sup>9</sup> is Pro and  
 Xxx<sup>10</sup> is Ala, D-Ala or Sar,  
 10 and their salts with pharmaceutically acceptable acids.

2. Compounds according to Claim 1, in which the salt is an acetate, trifluoroacetate or embonate.
- 15 3. Compounds according to Claim 1 or 2, in which Xxx<sup>6</sup> is D-[ε-N'-(imidazolidin-2-on-4-yl)formyl]-Lys, D-(3-amino-1,2,4-triazole-3-carbonyl)-Lys, abbreviated D-Lys(Atz) or D-[ε-N'-4-(4-amidino-phenyl)amino-1,4-dioxobutyl]-Lys, abbreviated  
 20 D-Lys(B).
4. Compound according to Claim 1 having the formula:  
 Ac-D-Nal(2)<sup>1</sup>-D-Cpa<sup>2</sup>-D-Pal(3)<sup>3</sup>-Ser<sup>4</sup>-N-Me-Tyr<sup>5</sup>-D-Hci<sup>6</sup>-  
 25 Nle<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-D-Ala<sup>10</sup>-NH<sub>2</sub>.
5. Compound according to Claim 1 having the formula:  
 Ac-D-Nal(2)<sup>1</sup>-D-Cpa<sup>2</sup>-D-Pal(3)<sup>3</sup>-Ser<sup>4</sup>-N-Me-Tyr<sup>5</sup>-D-Lys(Atz)<sup>6</sup>-Leu<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-D-Ala<sup>10</sup>-NH<sub>2</sub>.
- 30 6. Compound according to Claim 1 having the formula:  
 Ac-D-Nal(2)<sup>1</sup>-D-Cpa<sup>2</sup>-D-Pal(3)<sup>3</sup>-Ser<sup>4</sup>-N-Me-Tyr<sup>5</sup>-D-Lys(B)<sup>6</sup>-Leu<sup>7</sup>-Lys(iPr)<sup>8</sup>-Pro<sup>9</sup>-D-Ala<sup>10</sup>-NH<sub>2</sub>.

7. Compound according to Claim 1 having the formula:  
Ac-D-Nal(2)<sup>1</sup>-D-Cpa<sup>2</sup>-D-Pal(3)<sup>3</sup>-Ser<sup>4</sup>-N-Me-Tyr<sup>5</sup>-D-  
Lys(B)<sup>6</sup>-Leu<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-D-Ala<sup>10</sup>-NH<sub>2</sub>.
- 5 8. Compound according to Claim 1 having the formula:  
Ac-D-Nal(2)<sup>1</sup>-D-Cpa<sup>2</sup>-D-Pal(3)<sup>3</sup>-Ser<sup>4</sup>-N-Me-Tyr<sup>5</sup>-D-Hci<sup>6</sup>-  
Nle<sup>7</sup>-Lys(iPr)<sup>8</sup>-Pro<sup>9</sup>-D-Ala<sup>10</sup>-NH<sub>2</sub>.
- 10 9. Compound according to Claim 1 having the formula:  
Ac-D-Nal(2)<sup>1</sup>-D-Cpa<sup>2</sup>-D-Pal(3)<sup>3</sup>-Ser<sup>4</sup>-N-Me-Tyr<sup>5</sup>-D-Hci<sup>6</sup>-  
Nle<sup>7</sup>-Lys(iPr)<sup>8</sup>-Pro<sup>9</sup>-Sar<sup>10</sup>-NH<sub>2</sub>.
- 15 10. Compound according to Claim 1 having the formula:  
Ac-D-Nal(2)<sup>1</sup>-D-Cpa<sup>2</sup>-D-Pal(3)<sup>3</sup>-Ser<sup>4</sup>-N-Me-Tyr<sup>5</sup>-D-Hci<sup>6</sup>-  
Nle<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-Sar<sup>10</sup>-NH<sub>2</sub>.
- 20 11. Compound according to Claim 1 having the formula:  
3-(4-fluorophenyl)propionyl-D-Nal(1)<sup>1</sup>-Ser<sup>4</sup>-N-Me-  
Tyr<sup>5</sup>-D-Lys(Atz)<sup>6</sup>-Leu<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-D-Ala<sup>10</sup>-NH<sub>2</sub>.
- 25 12. Compound according to Claim 1 having the formula:  
Ac-D-Nal(2)<sup>1</sup>-D-Cpa<sup>2</sup>-D-Pal(3)<sup>3</sup>-Ser<sup>4</sup>-N-Me-Tyr<sup>5</sup>-D-  
Lys(B)<sup>6</sup>-Nle<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-Sar<sup>10</sup>-NH<sub>2</sub>.
- 30 13. Compound according to Claim 1 having the formula:  
Ac-D-Nal(2)<sup>1</sup>-D-Cpa<sup>2</sup>-D-Pal(3)<sup>3</sup>-Ser<sup>4</sup>-N-Me-Tyr<sup>5</sup>-D-  
Lys(B)<sup>6</sup>-Nle<sup>7</sup>-Arg<sup>8</sup>-Pro<sup>9</sup>-D-Ala<sup>10</sup>-NH<sub>2</sub>.
- 35 14. Compound according to Claim 1 having the formula:  
Ac-D-Nal(2)<sup>1</sup>-D-Cpa<sup>2</sup>-D-Pal(3)<sup>3</sup>-Ser<sup>4</sup>-N-Me-Tyr<sup>5</sup>-D-  
Lys(B)<sup>6</sup>-Nle<sup>7</sup>-Lys(iPr)<sup>8</sup>-Pro<sup>9</sup>-Sar<sup>10</sup>-NH<sub>2</sub>.
15. Pharmaceutical composition comprising a compound  
according to one of Claims 1<sup>2,14</sup> to 14.
16. Process for the preparation of compounds of the  
general formula I according to Claim 1, in which

5 fragments from units  $Xxx^m$  provided with suitable  
protective groups, in which m is an integer from 1  
to 10 and  $Xxx^1$  is acetylated, are synthesized on a  
solid phase or in solution according to customary  
processes, then the fragments are linked to a  
solid phase by segment coupling and after  
conclusion of the coupling the compounds of the  
general formula I are removed from the solid phase  
using customary processes with amidation on the  
10 unit  $Xxx^{10}$ .

17. Use of the substances according to Claims 1 to 14  
for producing medicaments for the treatment of  
hormone-dependent tumours, in particular prostate  
15 carcinoma or breast cancer, and also for non-  
malignant indications whose treatment necessitates  
LH-RH hormone suppression.

18. Process for producing medicaments, in which  
20 compounds according to Claims 1 to 14 are mixed  
with the customary vehicles and excipients and  
formulated as medicaments.